



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,617	02/02/2004	Wolfgang Eis	AMB-131-02	2301
24131	7590	08/29/2006		EXAMINER
LERNER GREENBERG STEMER LLP P O BOX 2480 HOLLYWOOD, FL 33022-2480				HOFFMANN, JOHN M
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/770,617	EIS ET AL.	
	Examiner	Art Unit	
	John Hoffmann	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 July 2006.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,3-27 and 29 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,3-27 and 29 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 July 2006 has been entered.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the spools and the bundles must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the spools and bundles as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

Applicant argues (page 14 of 12 June 2006 response) that page 28, lines 22-25 provides the definition for the "making-up" device. This definition requires "bundles" and "spools". Applicant's figure shows an invention which shows only one bundle and only one spool. Since the claims require (by way of the definition) spools and bundles, the drawings must show the plural bundles and plural spools.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-27 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms “follow-up” and “making-up” are not defined in the specification and have no art-recognized meaning. Examiner performed EAST (the PTO’s text database for the terms “follow-up” and “making-up” in class 65 – which is the class for glass manufacturing. None of the hits provide a definition, nor is there any consistency to their usage. No claim contains these terms. Applicant’s follow-up device does not appear to follow anything – it merely holds and feeds the preforms: if anything it is a beginning device. The ‘making-up’ device merely receives the fibers – it does not appear to make-up anything. One of ordinary skill would not be able to ascertain what is meant by these terms.

Furthermore, page 29, line 19 of the specification refers to “normal following-up”. Clearly, if such is a ‘normal’ feature/process, one would expect to find it mentioned in at least a few patents. Examiner cannot find anything in the prior art.

Moreover, Examiner’s best guess as to what this “follow-up” device is suppose to be, is any device “configured to hold and feed the preforms” – substantially nothing more and nothing less. Claim 1 specifies this. But that would suggest the term “follow-up” adds nothing to the claim. There is a presumption that everything in a claim means something. Examiner is in no position to disregard the term “follow-up” as giving no meaning to the claims. Examiner then finds it necessary to determine what meaning it inserts into the claim. Examiner, unable to determine what it means, thus concludes that he nor the hypothetical person skilled in the art would never be able to ascertain what is meant by the claim. It is suggested that the term “follow-up” be deleted from the claims.

For the making-up device, it is noted that applicant argues that page 28, lines 22-25 defines the term "making-up device". This is confusing at least because it refers to "bundles 6" and "spools 7". It is deemed that one of ordinary skill would not be able ascertain whether this really is a definition – and if it would exclude embodiments which make only one bundle and uses only one spool.

The term "bush" is indefinite as to its meaning. It is also noted that the term "bush" is very similar to the term "bushing" – and applicant suggests (but does not provide any evidence in support thereof) that "bush" means 'bushing'. As evidenced by Jensen 5062876 (figure 1 and col. 1, lines 13-28) that a bushing is a plate with a multiplicity of nozzles – which is quite different from a 'cylindrical sleeve' or any other definition suggested by applicant.

More concisely: in the mechanical arts, the term "bush" and "bushing" is a well-understood term – consistent with applicant's asserted definitions. However, the standard for claim interpretation is what the terms mean in the instant field of endeavor. This was recently reaffirmed yet again:

Conoco, Inc. and Conoco Specialty Products, Inc. v Energy & Environmental International, L.C. and Gerald B. Eaton, Ronald N. Grabois and Michael Monahan (Fed Cir, '05-1363,-1461, 8/17/2006)

In Phillips v. AWH Corp., we reaffirmed our often stated rule that the "words of a claim are generally given [the] ordinary and customary meaning" that they would have to a person of ordinary skill in the art at the time of the invention. 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc) (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). However, this "person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Id. at 1313; see also Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996) (holding that the claims "must be read in view of the specification, of which they are a part"). Indeed, an inventor may use the specification to intentionally disclaim or disavow the broad scope of a claim. Phillips, 415 F.3d at 1316.

BEST AVAILABLE COPY

Application/Control Number: 10/770,617
Art Unit: 1731

Page 6

However, this intention must be clear, see *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002) ("The patentee may demonstrate an intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope."), and cannot draw limitations into the claim from a preferred embodiment, see *Phillips*, 415 F.3d at 1323 ("We have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment."). Moreover, "when a claim term is expressed in general descriptive words, we will not ordinarily limit the term to a numerical range that may appear in the written description or in other claims." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998); *Modine Mfg. Co. v. U.S. Int'l Trade Comm'n*, 75 F.3d 1545, 1551 (Fed. Cir. 1996).

Here, the specification states that the "amount of alcohol employed in the suspending material may vary widely but it usually forms between about 0 and 70 weight percent of the suspending material, and more usually between about 30 and about 50 weight percent." '937 patent, col.5, ll.19-23 (emphasis added). EEI maintains that this language explicitly limits the amount of alcohol in the suspending medium to a numerical range-between 0 and 70 percent. However, this language refers to a preferred embodiment of the invention, and the given numerical ranges are not used in a context meant to limit the claims. In fact, the language itself inherently recognizes that the numerical range should not limit the claim by noting that the amount of alcohol "may vary widely" and "usually" falls within a numerical range. Thus, the patentee did not limit the claim term.

Applicant is applying a mechanical-art definition, but the claims need to be interpreted in the glass-manufacturing art – which as a long history of referring to a bushing as is done in Jensen.

Moreover, based on figure 3 and page 28, lines 10-15 of the specification, feature 15 is a bushing. This is inconsistent with applicant's definition which is merely a sleeve. Rather 15 has flow baffles, heating coils, and other features beyond a mere sleeve. Since applicant's disclosed embodiment has a "bush" which does not comport to the art-recognized meaning of "bush" (or bushing), and does not comport to the mechanical-art recognized meaning of "bush", it is deemed that one of ordinary skill would be at a complete loss in determining what is meant by the claims.

Claim 6: Applicant argues that the "preforms" are inferentially included and are not part of the invention. Examiner agrees that this is the plain reading of the claims. This issue is resolved.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1731

Claims 1, 3-11, 18-19, 21-23, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gouronnec 4373943 alone or in view of Watts 4204852 and Jensen 5062876.

Gouronnec discloses the invention as claimed – as previously discussed. Gouronnec does not disclose the limitation of the rows and angle. The only two arrangements are a single row, or two rows of two (see figures). Col. 3, lines 67-68 discloses using more than ten fibers, but there is no indication as to how to arrange the preforms. It would have been obvious to arrange them in rows, so as fit as many as many together as possible, and because Gouronnec already discloses 2x2 rows. It would have been obvious to include as many rows as desired – for example 3x3 or 4x4.

From MPEP 2144.04

B. Duplication of Parts

In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) (Claims at issue were directed to a water-tight masonry structure wherein a water seal of flexible material fills the joints which form between adjacent pours of concrete. The claimed water seal has a "web" which lies ** in the joint, and a plurality of "ribs" ** >projecting outwardly from each side of the web into one of the adjacent concrete slabs. <The prior art disclosed a flexible water stop for preventing passage of water between masses of concrete in the shape of a plus sign (+). Although the reference did not disclose a plurality of ribs, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.).

Even without the teaching of 2x2 rows, such would have been an obvious arrangement.

Arrangement of things in rows and columns has been practiced for eons.

From MPEP 2144.04

C. Rearrangement of Parts

In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) (Claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device.); In re Kuhle, 526 F.2d 553, 188 USPQ

Art Unit: 1731

7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). However, "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

It is noted that a regular 4x4 matrix reads on the claims, because there are rows at 45 degree angles – such as shown in the last Office action. Such an arrangement would have preforms at the respective crossing points.

Watts is cited as teaching more than 1000 fibers (col. 2, line 30). Jensen is cited as showing it is known to draw fibers in rows and columns (figure 4) and, more importantly, to stagger the rows (like applicant has done) so as to maximize the packing density (col. 3, lines 27-33). It would have been obvious to use arrange the preforms in staggered rows (or even non-staggered rows) so as to maximize the packing density, rather than having one long row, or one large circle as taught by Jensen.

Claims 3-8 are met as discussed in the prior Office actions.

Claims 9-11, 18-19, 21-23, 29 and 27 would have been obvious for the reasons of record. Official Notice has been taken previously. Since there has been no traversal, such is now treated as being admitted prior art.

Claims 1 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanghera in view of Gouronnec , Watts 4204852 and Jensen 5062876 and Ishihara 2002/0078715.

Sanghera does not teach the multiple bush/preform/draw structure required by the claims. Sanghera just teaches the single fiber approach. It would have been obvious to apply the Gouronnec, Watts and Jensen teachings (as discussed above) to the Sanghera method for the advantages that Gouronnec teaches.

As to claim 12, Sanghera only teaches one coil. But Ishihara teaches to divide the heating device into portions and to individually control their heating so as to reduce Rayleigh scattering: Ishihara [0058], Abstract and [0059]. It would have been obvious to divide the Sanghera coil into sub-units so as to better control the heating as taught by Ishihara. 106 is the diffuser.

Claims 1 and 11 and 13-17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanghera in view of Gouronnec, Watts and Jensen teachings (as discussed above) .

* See how Sanghera and Gouronnec are applied above.

Claim 13: see Col. 4, lines 53-54 of Sanghera.

Claims 14-15: see features 116 and/or 14 of Sanghera. It is noted that providing laminar flow is a method of use step and not structure. In as much as applicant merely provides an opening, Sanghera reads on the invention because it provides an opening. Whether any flow results in applicant's device depends entirely upon the size of the fiber/preform and other parameters.

Claims 11 and 16 are clearly met.

* Claim 17: see feature 116 of Sanghera.

Claim 24, Sanghera's lower portion of tube 106 is deemed to be a flow collar as claimed. As for the functional step – such is an intended use, not structure. Each flow collar would serve to delay the cooling of others – depending upon any heat source applied.

Claims 1, 18 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Oh 6053013 in view of Gouronnec 4373943, Watts and Jensen teachings (as discussed above).

Oh teaches the basic invention, but not the multiple bushes, the follow device, and the other features of claim 1. It would have been obvious to improve the Oh invention, by multiplying all the parts in the manner that Gouronnec teaches, so as to be able to make a single multiple-fiber cable in a single process. All of the features of claim 18 are taught by Gouronnec as discussed above.

Claim 20: Oh teaches the use of a vacuum device as claimed.

Claims 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee or Gouronnec, Watts and Jensen teachings as applied to claim 1 above, and further in view of Holschlag 3304163 (and optionally Watts 4204852).

The primary references do not teach the cooling zone – but such is not structure and it is inherent that the fibers are cooled as discussed above. The primary references do not teach a funnel. However it is known that when drawing large number of fibers, that such drags along a large amount of air which causes problems as disclosed in

Art Unit: 1731

Holschlag (col. 1, line 26 to col. 2, line 7). The solution to this problem is to utilize funnel-type guides (see Holschlag drawings and col. 4, lines 43-71). It would have been obvious to utilize Holschlag's teachings (i.e. the use of funnels) to improve the drawing process so as to prevent the problems that Holschlag teaches.

Watts is optionally cited to show it would have been obvious to draw a large number of fibers (more than 1000 fibers) (see above).

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

It is argued that the terms "follow-up" and "making-up" are defined on pages 1, 29 and 28. Examiner could find no definitions in those pages. Rather, these portions only appear to describe a preferred embodiment.

The specification must clearly set forth the definition explicitly and with reasonable clarity, deliberateness and precision. *Teleflex Inc. v. Ficosa North America Corp.*, 63 USPQ2d 1374, 1381 (fed. Cir. 2002), *Rexnord Corp. v. Laitram Corp.* 60 USPQ2d 1851, 1854 (fed. Cir. 2001) and MPEP 2111.01.

There is no deliberateness of setting forth of a definition. Nor does examiner see that the clarity or precision of a definition is reasonable. Further, as pointed out above ("[W]e have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment."))

Applicant's description of a particular follow-up device and making-up device, does not import any definition to the terms.

Art Unit: 1731

As to the "bushes", applicant argues that the term "bush" is a common art-recognized term in many US patents. Examiner agrees that in other arts the term has a single recognized term. As indicated above, the present field of endeavor recognizes the term "bushing" to be something that does not comport to the recognized meaning used in other arts.

Applicant argues "bush" means 1) a cylindrical sleeve or collar, 2) bushing, and 3) a removable lining or sleeve of metal or other material that is inserted or screwed into an opening to limit its size, resists wear or erosion or serve as a guide. This is not persuasive because A) Applicant has failed to supply any evidence to support these definitions. B) These are three definitions – Examiner cannot tell which applicant is arguing is the proper definition. C) None of the three definitions are in agreement with Applicant's bushing as shown in the drawings. D) The reasons given in the rejection above.

Regarding the prior art: it is argued that Guoronnec does not disclose the axes as claimed in claim 1. This is correct. However, it would have been obvious to provide axes as claimed, for the reasons set forth in the new rejections above. Most notably: 1) provide a regular array – which will inherently have the axes – at 45-degree angles; as well as 2) provide the off-set rows so as to maximize fiber placements as indicated in Jensen.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Hoffmann
Primary Examiner
Art Unit 1731

8-21-06

jmh